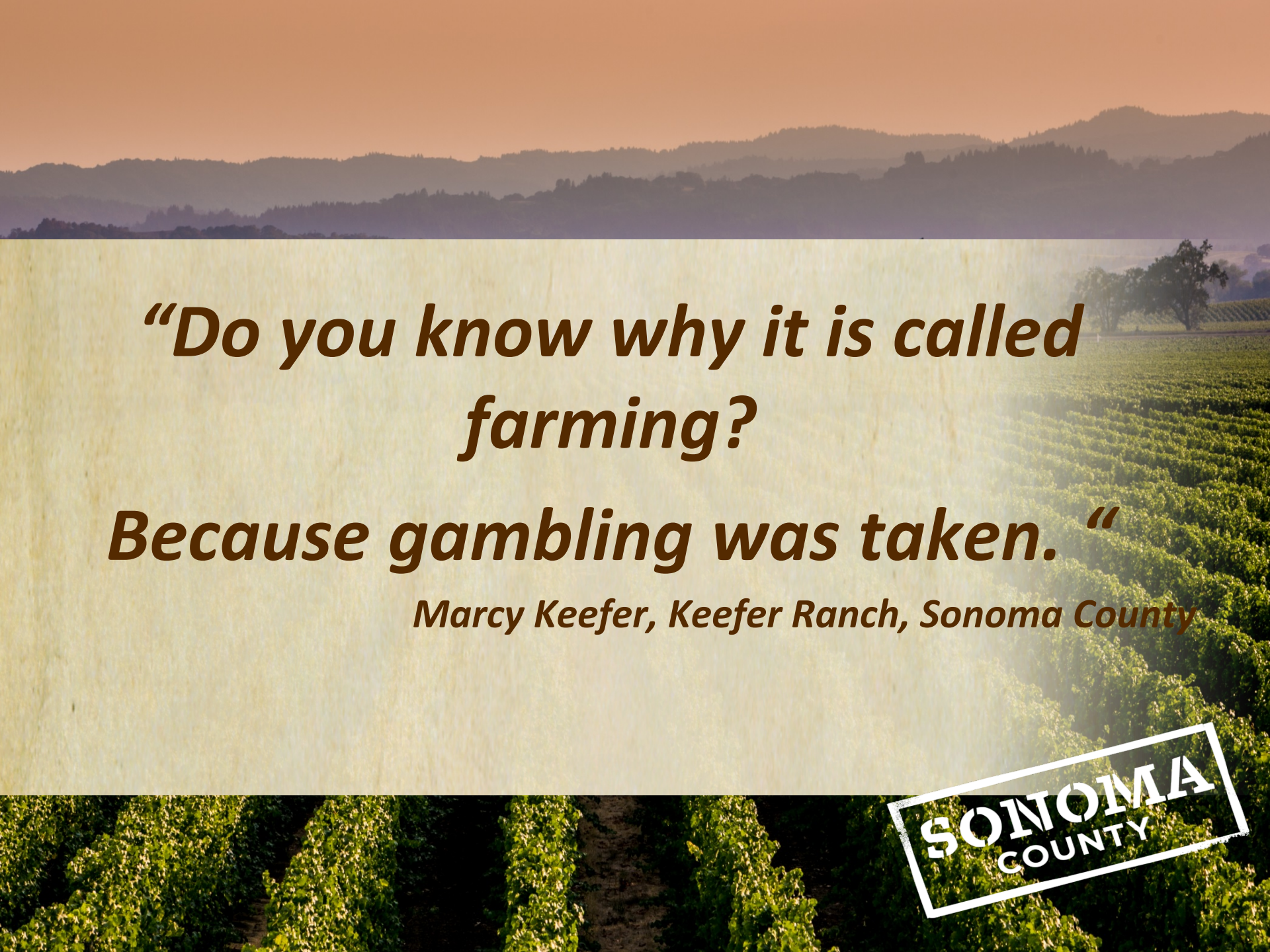


A scenic landscape of Sonoma County, California, featuring rolling hills with vineyards and oak trees under a warm, golden sunset sky. The foreground shows a field of dry, orange-brown grass.

**We
Are
Sonoma
County.**

**SONOMA
COUNTY**

**California Drought Forum
May 15th, 2014**



***“Do you know why it is called
farming?”***

Because gambling was taken. “

Marcy Keefer, Keefer Ranch, Sonoma County

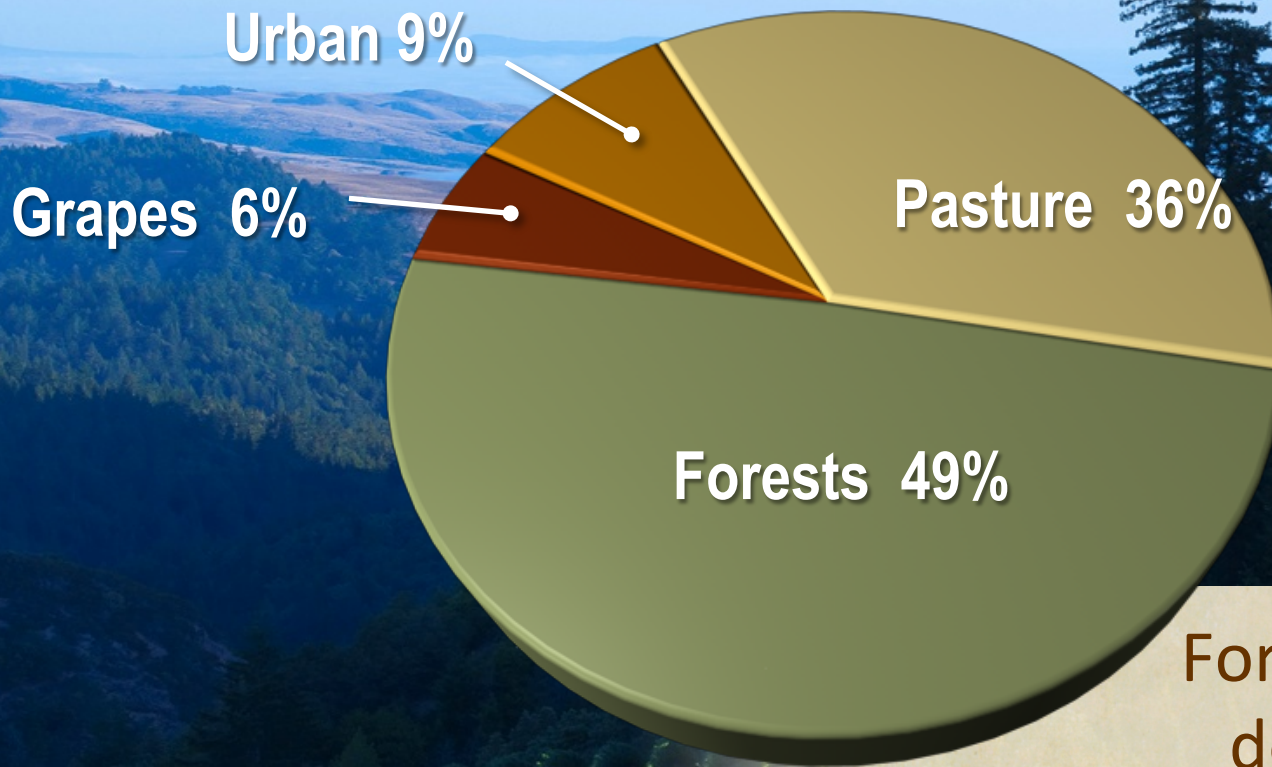
**SONOMA
COUNTY**

The Land of Sonoma County

- Just over 1 million acres
- 60,000 vineyard acres
- 1,800 Vineyard Owners
- 80% less than 100 acres
- 40% artisan vineyards less than 20 acres
- Small vineyards, increased quality



Half of Sonoma County's available land is in a natural state – only 6% in planted vineyards



Forest & woodlands dominate the land

Grapes are one of most efficient irrigated crops



One head of broccoli



5.4 gallons of water



One walnut



4.9 gallons of water



One head of lettuce



3.5 gallons of water



One tomato



3.3 gallons of water



One almond



1.1 gallons of water



One pistachio



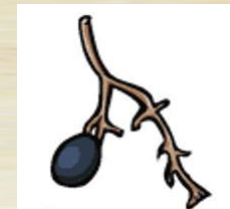
0.75 gallons of water



One strawberry



0.4 gallons of water



One grape



0.3 gallons of water

Vineyard Water Sources

1. **Ground water wells:** Direct or to storage no water right required.
2. **Well water from underflow:** Requires a riparian water right.
3. **A direct surface diversion:** Requires a water right, a CDFW 1600 permit and a fish screen.
4. **Reservoir on stream collecting surface water:** Requires a water right.
5. **Reservoir off stream:** Only requires a water right if used to store surface water.
6. **Recycled Water:** No water right required.



Understanding Vineyard Water Use

- We are responsible to use our limited water resource so that it **protects and enhances** our natural environment, wildlife and fisheries.
- Using **water efficiently, appropriately and conservatively** allows growers and wineries to **produce world-class wines**.
- **Vineyards and wineries use water ONLY when necessary** and all of us understand the importance of water conservation.
- Water is **used primarily for irrigation, frost protection and winery sanitation**.



Water Conservation Efforts To Date

- **Conserving water is essential** to any sustainable vineyard or winery operation.
- Growers have been **practicing innovative approaches** to maximizing efficiency of water usage: **installing weather stations, measuring plant water status weekly and drip irrigation**
- Wineries use innovative technology to **reclaim and recycle water**
- **Deficit irrigation** is used that replaces a percentage of water smaller than what the a vine actually uses, which enhances wine quality at the same time
- **Two drought workshops** to support best practices and education in February 2014



Collaboration is Critical

Goal is to manage
through voluntary
reductions and
coordination vs.
curtailments

SONOMA
COUNTY

Exploring Best Management Practices

- Only drip irrigation shall be allowed
- Utilize best available soil water moisture data to determine irrigation needs
- Utilize best available technology to determine vine Evapotranspiration (ET), and apply irrigation water at 50% of ET or less on Red Grapes and 70% of ET or less on White Grapes
- Irrigation shall be initiated as late as possible on a block by block basis



Exploring Best Management Practices

- Water users shall reduce and flatten their instantaneous demand from the Russian River by irrigating at half the rate over twice the duration or irrigating on alternating days on either side of the River.
 - East side of river - Monday, Wednesday, Friday (No Sunday irrigation)
 - West side of river - Tuesday, Thursday, Saturday (No Sunday irrigation)
- Reservoirs to be filled at night or on Sundays
- Irrigate at night if needed to achieve results
- Conservation and Technical outreach



It Matters!

- Sonoma County wine industry delivers **60% of local GDP** and **1 in 3 jobs!**
- Sonoma County's wine industry sets bold goal to be ***100% sustainable*** in next five years
- Collaboration is path to success





SUSTAINABLE

THEN. NOW. FOREVER.